

**POWER MOSFET AND METHOD FOR FORMING SAME
USING A SELF-ALIGNED BODY IMPLANT**

Abstract of the Disclosure

A method for making a power MOSFET includes forming a trench in a semiconductor layer, forming a gate dielectric layer lining the trench, forming a gate 5 conducting layer in a lower portion of the trench, and forming a dielectric layer to fill an upper portion of the trench. Portions of the semiconductor layer laterally adjacent the dielectric layer are removed so that an upper portion thereof extends outwardly from 10 the semiconductor layer. Spacers are formed laterally adjacent the outwardly extending upper portion of the dielectric layer, the spacers are used as a self-aligned mask for defining source/body contact regions.